

Claims:

1. A method of treating a neoplasm that expresses and/or bind IL13 comprising administering an effective amount of an anti-IL13 antibody or a binding fragment thereof, wherein said antibody or fragment binds specifically and with high affinity to both glycosylated and non-glycosylated human IL13, and neutralizes human IL13 activity at an approximate molar ratio of 1:2 (MAb:IL13).
2. The method of claim 1, wherein the antibody is 228B/C and produced by the hybridoma designated PTA-5657.
3. The method of claim 1, wherein the antibody binds to the same epitope as the antibody of claim 2.
4. The method of claim 1, wherein the antibody is 228A-4 and produced by the hybridoma designated PTA-5656; 227-26 and produced by the hybridoma designated PTA-5654; or 227-43 and produced by the hybridoma designated PTA-5655.
5. The method of claim 1, wherein the antibody is administered by inhalation, systemically, bolus injection, or continuous infusion.
6. The method of claim 1, wherein the antibody is a human antibody, a chimeric antibody, a single domain antibody or a humanized antibody.
7. The method of claim 1, wherein the antibody is a fragment, such as Fv, Fab, and F(ab')₂ fragments, single-chain antibodies such as scFv, and various chain combinations.
8. The method of claim 1, wherein the antibody is a single domain antibody.
9. The method of claim 1, wherein the antibody further comprises a physiologically acceptable carrier, diluent, excipient, or stabilizer.
10. The method of claim 1, wherein said neoplastic disorder is selected from the group consisting of Hodgkin's lymphoma, skin cancer, stomach cancer, colon cancer, breast cancer, pancreatic cancer, liver cancer, prostate cancer, lung cancer, head-and-neck cancer, renal cell cancer, squamous cell carcinoma, AIDS-associated Kaposi's carcinoma, and brain cancer.
11. The method of claim 1, wherein the antibody mediates killing by antibody dependent cell-mediated cytotoxicity and/or complement mediated cytotoxicity.
12. The method of claim 1, wherein the antibody comprises at least a variable light chain region comprising an amino acid sequence having the formula: FRL1-CDRL1-FRL2-CDRL2-FRL3-CDRL3-FRL4, wherein FRL1 consists of any one of SEQ ID Nos: 20-25; CDRL1 consists of any one of SEQ ID NOs: 99-103; FRL2 consists of SEQ ID NO: 29; CDRL2 consists of any one of SEQ ID Nos: 104-114; FRL3 consists of any one of SEQ ID NOs: 30-56; CDRL3 consists of any of SEQ ID NOs: 115-116; and FRL4 consists of SEQ ID NO: 57-59.
13. The method of claim 1, wherein the antibody comprises at least a variable light chain region comprising an amino acid sequence of any one of SEQ ID NOs: 3, 5, 7, 93, 95, 97, 142, 144, and 150.

14. The method of claim 12, wherein the variable light chain region further comprises a constant region.
15. The method of claim 13, wherein the variable light chain region further comprises a constant region.
16. The method of claim 1, wherein the antibody comprises at least a variable heavy chain region comprising an amino acid sequence having the formula: FRH1-CDRH1-FRH2-CDRH2-FRH3-CDRH3-FRH4, wherein FRH1 consists of any one of SEQ ID NOs: 60-66; CDRH1 consists of any one of SEQ ID NOs: 117-122; FRH2 consists of any one of SEQ ID NOs: 67-75; CDRH2 consists of any one of SEQ ID NOs: 123-134; FRH3 consists of any one of SEQ ID NOs: 76-90; CDRH3 consists of any of SEQ ID NOs: 135-141; and FRH4 consists of SEQ ID NO: 91-92.
17. The method of claim 1, wherein the antibody comprises at least a variable heavy chain region comprising any one of SEQ ID NOs: 4, 6, 8, 94, 96, 98, 143, 145, 146, 147, 148, and 149.
18. The method of claim 16 or 17, wherein the variable heavy chain region further comprises a constant region.
19. The method of claim 18, wherein the constant region is from an IgG antibody.
20. The method of claim 19, wherein the IgG antibody is an IgG1 antibody, an IgG2 antibody, an IgG3 antibody, or an IgG4 antibody.
21. The method of claim 12, wherein the antibody further comprises the heavy chain of claim 16.
22. The method of claim 13, wherein the antibody further comprises the heavy chain of claim 17.
23. The method of claim 22, wherein the antibody comprises a variable light chain region having the amino acid sequence set forth in SEQ ID NO: 142 and a variable heavy chain region having the amino acid sequence set forth in SEQ ID NO: 143.
24. The antibody of claim 22, wherein the antibody comprises a variable light chain region having the amino acid sequence set forth in SEQ ID NO: 150 and a variable heavy chain region having the amino acid sequence set forth in SEQ ID NO: 151.
25. The method of claim 1, wherein the antibody is a single chain antibody having the sequence set forth in SEQ ID NO: 152.
26. A method of treating Hodgkin's disease comprising administering an effective amount of the antibody or binding fragment thereof to a patient in need of such treatment, wherein the antibody binds specifically and with high affinity to both glycosylated and non-glycosylated human IL13, and neutralizes human IL13 activity at an approximate molar ratio of 1:2 (mAb:IL13).
27. The method of claim 26, wherein the antibody is humanized or is a chimeric antibody.
28. The method of claim 26, wherein the antibody is 228B/C and produced by the hybridoma designated PTA-5657.

29. The method of claim 28, wherein the antibody is a chimeric or humanized antibody of 288B/C.
30. The method of claim 1, wherein the antibody is associated with a cytotoxic agent.
31. The method of claim 13, wherein the cytotoxic agent is a radioisotope or a chemotherapeutic agent.
32. A method for inhibiting IL-13 dependent proliferation of neoplastic cells in a mammal comprising the step of administering an effective amount of an antibody, or a binding fragment thereof, that inhibits the biological activity of IL-13, wherein the antibody antibody or fragment binds specifically and with high affinity to both glycosylated and non-glycosylated human IL13, and neutralizes human IL13 activity at an approximate molar ratio of 1:2 (MAb:IL13).
33. A method of diagnosing a cancer or tumor overexpressing IL13 comprising the use of an anti-IL13 antibody of any one of claims 2-4 or 12-25 to detect overexpression of IL13 in the biological sample taken from a patient suspected of having said cancer or tumor.